WHAT IS CLAIMED IS:

1. A multiprojection system that displays one color image by joining a plurality of color images projected by respective projectors, the system comprising:

    image capturing means comprising optical means having a plurality of filter characteristics corresponding to a plurality of basic colors constituting the color image projected by the projectors, and capturing an image of each of the basic colors via the optical means; and

    calculating means for calculating offset correction data for each of the basic colors on the basis of a luminance distribution of offset light of each of the basic colors obtained by allowing the image capturing means to capture a black level image projected by the projectors.

2. The multiprojection system according to claim 1, further comprising correcting means for correcting an image signal input to the projector using the offset correction data calculated by the calculating means.

3. The multiprojection system according to claim 1, wherein wavelength ranges of the filter characteristics do not overlap one another.

4. The multiprojection system according to claim 1, wherein the optical means has a plurality of

filters corresponding to the plurality of filter characteristics, and the plurality of filters can be switched by a mechanical operation.

5. The multiprojection system according to claim 1, wherein the optical means has a tunable filter that can electrically set the plurality of filter characteristics.

6. The multiprojection system according to claim 1, wherein the calculating means calculates the offset correction data for each of the basic colors so that an offset luminance level of each of the basic colors equals a maximum value of the luminance distribution of offset light of each of the basic colors all over a projection area of the plurality of projectors.

7. The multiprojection system according to claim 1, further comprising means for calculating a gamma characteristic of each of the projectors on the basis of a luminance distribution of each image obtained by allowing the image capturing means to capture an image of each basic color at each signal level projected by the projector.

8. The multiprojection system according to claim 1, wherein the optical means further has a filter characteristic that does not allow light of wavelength from 650 nm to a predetermined value to pass through.

9. A method of acquiring correction data in

a multiprojection system that displays one color image
by joining a plurality of color images projected by
respective projectors, the method comprising:

projecting a black level image from the

5   projectors;

separating the black level image into images of
basic colors constituting the color image using optical
means having a plurality of filter characteristics
corresponding to the basic colors;

10   capturing each of the separated images of the
basic colors; and

calculating offset correction data for each of the
basic colors on the basis of a luminance distribution
of offset light of each of the basic colors obtained by

15   capturing each of the separated images of the basic
colors.

10.   The method according to claim 9, wherein
calculating the offset correction data includes
calculating a gamma characteristic of the projector.